

Shinji IMOTO et al. , S.N. 10/563,214  
Page 2

RECEIVED  
CENTRAL FAX CENTER  
JAN 03 2008

Dkt. 2271/75688

### Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An image forming apparatus comprising:

a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by positive and negative electric charges applied thereto;

a charger that applies the positive and negative electric charges alternately to said conveyance belt;

a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by said conveyance belt; and

adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to said conveyance belt,

wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from said recording head toward the recording medium, in accordance with a resistance value of the recording medium.

2. (original) The image forming apparatus as claimed in claim 1, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of a surface resistance of the recording medium.

3. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said

Shinji IMOTO et al. , S.N. 10/563,214  
Page 3

Dkt. 2271/75688

adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of a volume resistance of the recording medium.

4. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of environment temperature and humidity.

5. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with externally given information regarding the resistance value of the recording medium.

6. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a charge period length of positive and negative charges applied by said charger to said conveyance belt.

7. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling an alternating voltage applied to said charger to apply positive and negative charges to said conveyance belt.

8. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said

Shinji IMOTO et al. , S.N. 10/563,214  
Page 4

Dkt. 2271/75688

adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a timing of applying electric charges onto said conveyance belt so as to switch existence/nonexistence of charges on the surface of the recording medium.

9. (withdrawn) The image forming apparatus as claimed in claim 1, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling at least one of a conveyance speed and a stop time of said conveyance belt so as to change a time period from a time when the charges are applied to said conveyance belt until a time when the charges on said conveyance belt reach the recording position.

10. (withdrawn) An image forming apparatus comprising:

a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto;

a charger that applies electric charges to said conveyance belt;

a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by said conveyance belt; and

adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium,

wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of a relative position between the recording medium and the charges applied to said conveyance belt.

11. (withdrawn) The image forming apparatus as claimed in claim 10, wherein said

Shinji IMOTO et al. , S.N. 10/563,214  
Page 5

Dkt. 2271/75688

adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a charge period length of positive and negative charges applied by said charger to said conveyance belt.

12. (withdrawn) The image forming apparatus as claimed in claim 10, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling an alternating voltage applied to said charger to apply positive and negative charges to said conveyance belt.

13. (withdrawn) The image forming apparatus as claimed in claim 10, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a timing of applying electric charges onto said conveyance belt so as to switch existence/nonexistence of charges on the surface of the recording medium.

14. (withdrawn) The image forming apparatus as claimed in claim 10, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling at least one of a conveyance speed and a stop time of said conveyance belt so as to change a time period from a time when the charges are applied to said conveyance belt until a time when the charges on said conveyance belt reach the recording position.

15. (withdrawn) An image forming apparatus comprising:

a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto;

Shinji IMOTO et al. , S.N. 10/563,214  
Page 6

Dkt. 2271/75688

a charger that applies electric charges to said conveyance belt;

a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by said conveyance belt; and

adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium,

wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a size of the droplets of the recording liquid discharged from said recording head.

16. (withdrawn) The image forming apparatus as claimed in claim 15, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with externally given information recording a size of the droplets of the recording liquid.

17. (withdrawn) The image forming apparatus as claimed in claim 15, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a charge period length of positive and negative charges applied by said charger to said conveyance belt.

18. (withdrawn) The image forming apparatus as claimed in claim 15, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling an alternating voltage applied to said charger to apply positive and negative charges to said conveyance belt.

Shinji IMOTO et al. , S.N. 10/563,214  
Page 7

Dkt. 2271/75688

19. (withdrawn) The image forming apparatus as claimed in claim 15, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a timing of applying electric charges onto said conveyance belt so as to switch existence/nonexistence of charges on the surface of the recording medium.

20. (withdrawn) The image forming apparatus as claimed in claim 15, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling at least one of a conveyance speed and a stop time of said conveyance belt so as to change a time period from a time when the charges are applied to said conveyance belt until a time when the charges on said conveyance belt reach the recording position.

21. (withdrawn) An image forming apparatus comprising:

a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto;

a charger that applies electric charges to said conveyance belt;

a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by said conveyance belt; and

adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium.

wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a viscosity of the droplets of the recording liquid discharged from said recording head.

Shinji IMOTO et al. , S.N. 10/563,214  
Page 8

Dkt. 2271/75688

22. (withdrawn) The image forming apparatus as claimed in claim 21, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with a result of detection of an environment temperature.

23. (withdrawn) The image forming apparatus as claimed in claim 21, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a charge period length of positive and negative charges applied by said charger to said conveyance belt.

24. (withdrawn) The image forming apparatus as claimed in claim 21, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling an alternating voltage applied to said charger to apply positive and negative charges to said conveyance belt.

25. (withdrawn) The image forming apparatus as claimed in claim 21, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a timing of applying electric charges onto said conveyance belt so as to switch existence/nonexistence of charges on the surface of the recording medium.

26. (withdrawn) The image forming apparatus as claimed in claim 21, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling at least one of a conveyance speed and a stop time of said conveyance

Shinji IMOTO et al. , S.N. 10/563,214  
Page 9

Dkt. 2271/75688

belt so as to change a time period from a time when the charges are applied to said conveyance belt until a time when the charges on said conveyance belt reach the recording position.

27. (withdrawn) An image forming apparatus comprising:

a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by electric charges applied thereto;

a charger that applies electric charges to said conveyance belt;

a recording head that discharges droplets of a recording liquid toward the recording medium being conveyed by said conveyance belt; and

adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium,

wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium in accordance with at least two items including a resistance value of the recording medium, a result of detection of a relative position between the recording medium and the charges applied to said conveyance belt, a size of the droplets of the recording liquid discharged from said recording head and a viscosity of the droplets of the recording liquid discharged from said recording head.

28. (withdrawn) The image forming apparatus as claimed in claim 27, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a charge period length of positive and negative charges applied by said charger to said conveyance belt.



Shinji IMOTO et al., S.N. 10/563,214  
Page 10

Dkt. 2271/75688

29. (withdrawn) The image forming apparatus as claimed in claim 27, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling an alternating voltage applied to said charger to apply positive and negative charges to said conveyance belt.

30. (withdrawn) The image forming apparatus as claimed in claim 27, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a timing of applying electric charges onto said conveyance belt so as to switch existence/nonexistence of charges on the surface of the recording medium.

31. (withdrawn) The image forming apparatus as claimed in claim 27, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling at least one of a conveyance speed and a stop time of said conveyance belt so as to change a time period from a time when the charges are applied to said conveyance belt until a time when the charges on said conveyance belt reach the recording position.

32. (withdrawn) An image forming apparatus configured and arranged to perform both-side printing, comprising:

- a conveyance belt that conveys a recording medium having a first surface and a second surface opposite to the first surface by attracting the recording medium by an electrostatic force generated by electric charges applied thereto;

- a charger that applies electric charges to said conveyance belt;

- a recording head that discharges droplets of a recording liquid toward the recording

Shinji IMOTO et al. , S.N. 10/563,214  
Page 11

Dkt. 2271/75688

medium being conveyed by said conveyance belt; and

adjusting means for adjusting an amount of electric charges induced on a surface of the recording medium,

wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from said recording head toward the recording medium, in accordance with a resistance value of the recording medium and a fact as to whether an image is being formed on the first surface to be printed first or the second surface printed subsequent to the first surface.

33. (withdrawn) The image forming apparatus as claimed in claim 32, wherein a resistance value of the second surface of the recording medium is presumed in accordance with an amount of the recording liquid adhered onto the first surface of the recording medium.

34. (withdrawn) The image forming apparatus as claimed in claim 33, wherein a resistance value of each predetermined area of the second surface of the recording medium is presumed in accordance with an amount of the recording liquid adhered on each predetermined area of the first surface of the recording medium.

35. (withdrawn) The image forming apparatus as claimed in claim 32, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a charge period length of positive and negative charges applied by said charger to said conveyance belt.

Shinji IMOTO et al. , S.N. 10/563,214  
Page 12

Dkt. 2271/75688

36. (withdrawn) The image forming apparatus as claimed in claim 32, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling an alternating voltage applied to said charger to apply positive and negative charges to said conveyance belt.

37. (withdrawn) The image forming apparatus as claimed in claim 32, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling a timing of applying electric charges onto said conveyance belt so as to switch existence/nonexistence of charges on the surface of the recording medium.

38. (withdrawn) The image forming apparatus as claimed in claim 32, wherein said adjusting means adjusts the amount of the electric charges on the surface of the recording medium by controlling at least one of a conveyance speed and a stop time of said conveyance belt so as to change a time period from a time when the charges are applied to said conveyance belt until a time when the charges on said conveyance belt reach the recording position.